



Tramo Canal de Castilla a Boadilla del Camino © E. O. Pederson 2005

## The Canal de Castilla

Occasionally when I daydream about walking the Camino, I think about walking during the hottest months of summer. I have only walked in the mild weather of autumn, and perhaps my imagination is getting the best of me, but I daydream of taking a siesta on the banks of the Canal de Castilla, dangling my tired feet in its cool water, perhaps even taking a quick dip on a torrid afternoon. While that may be a daydream, the Canal itself is a startling change in scenery for pilgrims walking between Burgos and León. After several days walking across the arid and nearly treeless meseta, with several more to follow, suddenly at Boadilla del Camino the route joins a towpath and follows a placid body of water for the 6 km walk into Frómista. In autumn the Canal provides a welcome change of colors from the tans and browns of the meseta. The poplars, willows and other trees and plants lining the edges of the blue water stay green long after the wheat and hay fields have turned dun and been harvested. Ducks swim in its waters, and I even saw a fisherman testing his luck. In summer heat, the sight of the Canal must be a welcome one indeed.

My fascination with canals has been a longstanding one. I grew up not far from The Lake Washington Ship Canal, I spent summers in an area where a massive set of irrigation canals were being constructed, and as a child I read the heroic tales of construction of the Erie and Panama Canals. Later I walked and bicycled along the towpaths of the Chesapeake and Ohio Canal in Maryland, the James River Canal in Virginia, and the Rideau Canal near Ottawa and made some brief excursions on the canals of England and the Netherlands. Until I walked the Camino for the first time, I was unaware that canals for navigation, crucially important elements in the economic development of northwestern Europe and eastern North America, also existed in arid Spain. When I saw the Canal de Castilla at Boadilla I assumed that it must be an irrigation flume, as indeed it is today. But crossing the Canal to enter Frómista one sees clear evidence of a flight of locks just below the footbridge (see the photograph at the end of this posting). Was the Canal de Castilla built for navigation? Locks are built only when a canal is intended for flat-water navigation, for the expense would not be worthwhile if it was merely an irrigation flume. A little investigation after I returned home indicated that the Canal de Castilla was indeed built for transportation and not merely to carry irrigation water.

The Canal is an anomaly on the arid meseta, but the medieval pilgrim would not have been able to depend on its water for drinking, bathing, or watering horses. Construction of the Canal de Castilla was not begun until 1758 and was not completed until the 19<sup>th</sup> century. A project of the

Age of Enlightenment, the Canal was a part of a larger, and ultimately never fully realized, project to link Santander on the Costa de Cantabria to Segovia by navigable water. If it had been built, the total route would have been one of the engineering wonders of its age, for it would have required a formidable climb to get across the coastal mountains. The project was originally suggested in the mid 17<sup>th</sup> century, some years before the first European navigation canal was built in France in the last part of that century.<sup>1</sup> During the 18<sup>th</sup> and 19<sup>th</sup> centuries numerous canals were built in western and central Europe, and in the 19<sup>th</sup> century navigation canals were built in eastern North America, but none of them ever came close to the nearly 1000 meters of elevation a canal from Santander would have been required to gain. If completed, just the trunk canal of the Spanish project would have been nearly 1000 kms in length, not including a number of proposed branches. The whole project was never completed for at least four reasons: the technical difficulty of the undertaking, an insufficiency of funds, the arid climate of interior Spain, and finally the advent of the railroad as the major means of communication.

While the larger project was never achieved, over two generations almost 210 kms of canal were constructed to form an inverted Y, the three arms joining near the northern edge of the city of Palencia.<sup>2</sup> From that junction one arm of the Canal de Castilla goes southwest toward the town of Medina de Rioseco (the arm is also called the Canal de Campos) and another goes southward passing through Palencia to terminate at Valladolid. The northern and longest arm of the Canal begins at the town of Alar del Rey near the lower slopes of the Picos de Europa. At this its highest point, the Canal draws its major water supply from the Rio Pisuerga (walking westward from Castrojeriz on the Camino, Rio Pisuerga is crossed on an elegant old bridge near Itero de la Vega where the river marks the boundary between the Provinces of Burgos and Palencia). The brief conjunction of the route of the Camino and the Canal is about halfway along the northern arm.

Because there is an elevation difference of more than a hundred and fifty meters between Alar and Valladolid, multiple locks were necessary for flat-water navigation. One of the most impressive sets of locks was gathered in a flight of four at Frómista losing 15 meters as the Canal goes from the plateau into the valley of the Rio Ucleza. That abandoned flight of locks is one of the more photographed sites on the Camino, certainly the most photographed work of hydraulic engineering. Those locks, with gates now missing, operated until the 1950s so that boats and barges could be slowly moved up or down. But locks demand a huge quantity of water to operate, and from the beginning ensuring adequate supplies of water to keep the canal full -- to meet demands for water by farms, industries, and towns along its route and to operate the locks -- was a problem. The canals were most important for transporting grain at the end of the harvest season, exactly the time of year when water supplies were at their low ebb. By the 1950s the demand for irrigation, industrial and domestic water, and the availability of rail and road transportation led to the abandonment of the locks and thus the cessation of through barge traffic on the canal.

From the first navigation in 1791, the Canal encouraged the grain trade, and the manufacture of flour became a major activity at places like Valladolid, Palencia, and Frómista itself. In its last years of operation for navigation, grain was about the only commodity carried on the Canal de

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<sup>1</sup> The Canal de Briare or Canal du Midi crossing southwestern France and connecting the Mediterranean with the Atlantic was the first, constructed in the latter years of the 17<sup>th</sup> century. That canal still operates and is a popular tourist attraction. Several of the routes of the Chemin St. Jacques from Central France cross the Canal du Midi.

<sup>2</sup> For maps see [http://hispagua.cedex.es/cultura\\_agua/textos/canal/canal2.htm](http://hispagua.cedex.es/cultura_agua/textos/canal/canal2.htm) or <http://www.arrakis.es/~comenius/castilla/historia/geograf.htm>

Castilla, delivered to the flour mills in those and other towns and cities. A few decades after the Canal was opened to traffic the first railroads entered Castilla la Vieja, and as early as 1870 the railroads were diverting traffic from the canal even as they encouraged the development of larger flour mills in bigger cities. By the 1930s there was hardly any traffic on the canal, and were it not for the political and economic disruptions of the Spanish Civil War and World War II, the Canal probably would have ceased operations before 1950. As it was, in 1955 it was decided to decommission the locks and use the Canal solely as a source of water for irrigation, for adjacent industrial facilities, and for domestic uses in the towns and cities along its route. Decommissioning was completed in 1959.

The few pilgrims walking the Camino in the 19<sup>th</sup> and the first half of the 20<sup>th</sup> century would have seen canal barges, especially at Frómista where boats and barges were forced to wait to be passed through the locks. If the peregrino had wandered a short distance off the Camino near Frómista, the sight of an aqueduct carrying the Canal across the river would have been a reward, as indeed it remains today. While there are a number of such aqueducts scattered in Europe and North America, the sight of a canal carried on a bridge over a river remains fascinating to some of us. Maybe a pilgrim could have even hitched a ride for the 6 km where the Canal joins the Camino, one of the few places where a transportation alternative to walking or riding horseback was available prior to completion of railway lines.

No Longer a route for boats and barges, the Canal de Castilla remains a popular element in the landscape of the region, and the various local tourist bureaus promoting *turismo* and *turismo rural* feature it in their brochures and websites. The towpath is intact for much of the length of the Canal, and walking or bicycling along that towpath is a popular activity. As there are fewer barriers to navigation south of Frómista, small boats can also use the Canal for recreation. Alas, the route of the Canal, aside from the 6 kms between Boadilla and Frómista, is perpendicular to the route of the Camino Frances. Attractive as a walk on a towpath can be, following the towpath would put a pilgrim far off the direct route to Santiago.

A good brochure is available from the Provincial tourist bureau:  
*El Canal de Castilla*. Diputación Provincial de Palencia. Available from ADECO Canal de Castilla. Plaza de Tuy, 11, 34440 Frómista (Palencia).

### **Websites on the Canal:**

I have been unable to locate any worthwhile literature or websites on the Canal de Castilla in English. All of the following sites are in Castellano.

### **History of the Canal:**

[http://hispagua.cedex.es/cultura\\_agua/textos/canal/canal.htm](http://hispagua.cedex.es/cultura_agua/textos/canal/canal.htm) -- a good brief history of the Canal de Castilla with maps and descriptions of the various segments.

<http://www.arrakis.es/~comenius/castilla/inicio.htm> -- a school project, this probably the best and most thorough collection of information about the Canal. The opening page has bird song as a background sound.

[http://www.mcu.es/igc/Jornadas/Eupa\\_2001/castilla-leon/c-1\\_canal.htm](http://www.mcu.es/igc/Jornadas/Eupa_2001/castilla-leon/c-1_canal.htm) -- a scholarly website discussing the role of the Canal in the industrial development of the region and its current role in industrial archaeology.

<http://apuntes.rincondelvago.com/canal-de-castilla.html> A quite good history of the Canal can be downloaded in various formats from this site. I suspect it might be a site used by students looking for cash and carry term papers.

**Tourism in the Region:**

<http://www.turwl.com/centro/canal/canal.htm> -- a site oriented to tourism in the region, in addition to a section the Canal de Castilla, there is also a section on the route of the Camino in Palencia.

[http://www.palencia.com/ayuntamiento/ciudad\\_canal\\_castilla.htm](http://www.palencia.com/ayuntamiento/ciudad_canal_castilla.htm) -- another site oriented to tourism with a focus on the city of Palencia, but it includes a good history of the Canal.

**Photographs of the Canal:**

<http://www.meneses.info/canal-de-castilla.htm> -- there is a fascinating panoramic photograph of the canal at this site.



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